

B. Claims

The following is a complete listing of the claims, and replaces all earlier versions and listings.

1-2. (Cancelled)

3. (Currently Amended) A production method for a membrane electrode assembly for a solid polymer fuel cell proton-exchange membrane fuel cell, the assembly comprising a polymer electrolyte membrane and an electrode metal catalyst layer, at least a part of the polymer electrolyte membrane infiltrating into the electrode metal catalyst layer, the production method comprising the steps of:

coating the electrode metal catalyst layer with a composition containing at least a compound having ~~proton conductivity and a compound having activity to an active energy ray, or a composition containing at least a compound having proton conductivity and activity to the active energy ray;~~ a sulfonic group-containing monomer to form a precursor layer of the polymer electrolyte membrane composed of the composition, at least a part of the composition infiltrating into the electrode metal catalyst layer; and

polymerizing the composition by irradiating the precursor layer with the active energy ray, to form a polymer electrolyte membrane at least a part of which infiltrates into the electrode metal catalyst layer.

4. (Previously Presented) A production method for a membrane electrode assembly according to claim 3, wherein the electrode metal catalyst layer has a

thickness of 0.01 to 200 μm , and an infiltration amount of the composition into the electrode metal catalyst layer is equal to or smaller than the thickness of the electrode metal catalyst layer.

5. (Previously Presented) A production method for a membrane electrode assembly according to claim 3, wherein the composition is coated after a reinforcement member composed of an electrical insulator is provided on the electrode metal catalyst layer.

6. (Cancelled)

7. (Previously Presented) A production method for a membrane electrode assembly according to claim 3, wherein a thickness of the precursor layer is from 5 to 500 μm .